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BSH HOME APPLIANCES CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
100 BOSCH BOULEVARD
NEW BERN, NC 28562

EXAMINER

GOLIGHTLY, ERIC WAYNE

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/583,502
Filing Date: February 27, 2007
Appellant(s): HEILIGENMANN ET AL.

Andre Pallapies (Reg. No. 62,246)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 3, 2010, appealing from the Office action mailed July 14, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 21-40 are pending. Claims 31-39 are withdrawn.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

JP 10014844	NAKATANI	1-1998
5,172,572	ONO	12-1992
JP 2003144372	OMACHI	5-2003
JP 11137882	KAWAGUCHI et al.	5-1999
5,863,031	VEEDER et al.	1-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-24, 27-28, 30 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-014844.

JP 10-014844 teaches a device for washing and disinfecting dish and other tableware (title) comprising a washing container (Fig. 1, #2), devices for applying rinsing liquor to the items to be washed in the washing container (Fig. 1, #7); and one device for generating a gas having an oxidizing effect which is fully capable of being employed in a wash program, wherein the gas having an oxidizing effect is fully capable of being provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding into an interior of the washing container for use, for cleaning and disinfection (Fig.1).

For claim 22, note that the gas having an oxidizing effect can be applied to the items to be washed in cooperation with mist in the interior of the washing container (abstract).

For claim 23, note that the mist can be produced from rinsing liquid or raw water by a nebulising device (read as nebulising nozzle, Fig. 1, #63, abstract).

For claim 24, note that the gas having an oxidizing effect is already added to the rinsing liquor or the raw water which is supplied to the nebulising device (Fig. 1, #63, abstract).

For claim 27, note that JP 10-014844 teaches a water jet diffuser (Fig.3). Since all the structure are found in the prior art, it is fully capable of performing the functions as recited in claim 27.

For claim 28, note that a water jet pump (Fig. 1, #6) is disposed in a raw water pipe (Fig. 1, unlabeled, the pipe connecting valve #52 and mixer #51 through valve #53, water jet pump #6 and valve #55) or in a circulating pipe (Fig. 1, unlabeled, the pipe connecting sump #9 and spray arm through valve #53, water jet pump #6 and valve #55) for acting upon the devices for applying rinsing liquor to the items to be washed. Note that the device is fully capable of passing a portion of the raw water or the rinsing liquor to a branch (Fig. 1).

For claim 30, note that the gas having an oxidizing effect is ozone (abstract), which is produced in an ozone generator (Fig. 1, #40).

For claim 40, JP 10-014844 teaches a device for washing and disinfecting dish and other tableware (title) comprising a washing container (Fig. 1, #2) and devices, which is fully capable of applying rinsing liquor to the items to be washed in the washing container (Fig. 1, #7), wherein the washing container being operable to receive therein ozone-enriched mist at least for cleaning items to be washed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Appellants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 21-23, 25, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,172,572) in view of JP 2003-144372.

Ono teaches a dishwasher comprising a washing container (Fig. 1, #18), devices which is fully capable of applying rinsing liquor to the items to be washed in the washing container (Fig. 1, unlabeled, the orifice of an atomizer #9); an nebulising device which is fully capable of producing mist (Fig. 1, #9).

Ono remains silent about one or more devices for generating a gas having an oxidizing effect that is employed in a washing program, wherein the gas having an oxidizing effect is provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding the gas into an interior of the washing container for use, for cleaning and disinfection.

JP 2003-144372 teaches a dishwasher comprising a device for generating a gas having an oxidizing effect (Fig. 10, #21, abstract), which is fully capable of being employed in a washing program, wherein the gas having an oxidizing effect is fully capable of being provided to the washing container during the wash program by adding the gas into an interior of the washing container (Fig. 10) for use, for cleaning and disinfection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dishwasher of Ono by adding a device for generating a gas having an oxidizing effect as mentioned in JP 2003-144372 to sterilize and deodorize dishes (JP 2003-144372, abstract), thus enhance cleaning efficiency of the

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dishes. Since all the structures are found in the combined prior art, it is fully capable of performing the functions as recited in claim 21.

For claim 22, note that the dishwasher of combined teaching of Ono and JP 2003-144372 is fully capable of applying the gas having an oxidizing effect to the items to be washed in cooperation with mist in the interior of the washing container.

For claim 23, note that the dishwasher of combined teaching of Ono and JP 2003-144372 is fully capable of producing the mist from rinsing liquid or raw water by the nebulising device (Ono, Fig. 1, #9).

For claim 25, note that the dishwasher of combined teaching of Ono and JP 2003-144372 is fully capable of performing the step of no gas having an oxidizing effect being already added to the rinsing liquor or the raw water which is supplied to the nebulising device. Note that the gas having an oxidizing effect is added directly to the interior of the washing container (JP 2003-144372, Fig. 10) in the dishwasher of the combined teaching of Ono and JP 2003-144372.

For claim 28, note that Ono teaches a water jet pump (Ono, Fig. 1, #8) is disposed in a circulation pipe (Ono, Fig. 1, #7) for acting upon the devices, which is fully capable of applying rinsing liquor to the items to be washed.

For claim 30, note that the dishwasher of combined teaching of Ono and JP 2003-144372 teach the gas having an oxidizing effect is ozone, which is produced in an ozone generator (JP 2003-144372, abstract).

Claims 21-24 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,172,572) in view of JP 11-137882.

Ono teaches a dishwasher comprising a washing container (Fig. 1, #18), devices which is fully capable of applying rinsing liquor to the items to be washed in the washing container (Fig. 1, unlabeled, the orifice of an atomizer #9); an nebulising device which is fully capable of producing mist (Fig. 1, #9).

Ono remains silent about one or more devices for generating a gas having an oxidizing effect that is employed in a washing program, wherein the gas having an oxidizing effect is provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding the gas into an interior of the washing container for use, for cleaning and disinfection.

JP 11-137882 teaches a dishwasher comprising a device (Fig.7, #76) for generating a gas having an oxidizing effect that is fully capable of being employed in a washing program, wherein the gas having an oxidizing effect is fully capable of being provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding the gas into an interior of the washing container for use, for cleaning and disinfection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dishwasher of Ono by adding a device for generating a gas having an oxidizing effect as mentioned in JP 11-137882 to reduce COD (Chemical Oxygen Demand) and BOD (Biochemical Oxygen Demand) in drain water (abstract, JP 11-137882), thus provide a more environmental friendly dishwasher. Since

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all the structures are found in the combined prior art, it is fully capable of performing the functions as recited in claims 21-22 and 24.

For claim 23, note that the dishwasher of combined teaching of Ono and JP 11-137882 is fully capable of producing the mist from rinsing liquid or raw water by the nebulising device (Ono, Fig. 1, #9)

For claim 28, note that Ono teaches a water jet pump (Ono, Fig. 1, #8) is disposed in a circulation pipe (Ono, Fig. 1, #7) for acting upon the devices, which is fully capable of applying rinsing liquor to the items to be washed.

For claim 29, note that the dishwasher of combined teaching of Ono and JP 11-137882 is fully capable of adding the gas having an oxidizing effect to the rinsing liquor or the raw water in a rinsing liquor reservoir (Fig.7 of JP 11-137882, unlabeled, the sump of the dishwasher). The gas having an oxidizing effect is fully capable of preventing growth of bacteria in the rinsing liquor reservoir.

For claim 30, note that the dishwasher of combined teaching of Ono and JP 11-137882 teach the gas having an oxidizing effect is ozone, which is produced in an ozone generator (JP 11-137882, abstract and Fig.7, #76).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,172,572) in view of JP 11-137882 in further view of Veeder et al (US 5,863,031).

Ono and JP 11-137882 teach a dishwasher cited above.

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Ono and JP 11-137882 remain silent about the gas having an oxidizing effect is added to the rinsing liquor for solution and reaction, using a porous membrane in the rinsing liquor.

However, Veeder et al teach a porous membrane (Fig. 1, #40) in a volume of liquid for adding a gas having an oxidizing effect into the liquid (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dishwasher of combined teaching of Ono and JP 11-137882 by adding a porous membrane such that the gas having an oxidizing effect is added to the rinsing liquor for solution and reaction through the porous membrane in the rinsing liquor as motivated by Veeder et al to produce a finer gas bubbles, so that the surface area of gas exposed to the liquid can be optimized (Veeder et al, col. 1, L.31-34).

(10) Response to Argument

Initially, it is noted that appellants have clarified that the term "program" is not herein limited to software or computer programming, and have put forth that the term "program" must be interpreted as broadly as is reasonable (see the remarks filed September 1, 2010, paragraph bridging pages 7 and 8). Accordingly, the term "program" is thus understood to include a group of steps, i.e. a process (see the Office action mailed September 14, 2010, last paragraph).

Regarding the first ground of rejection (see the Appeal Brief at page 4, paragraph beginning "(a) Whether claims 21-24, 28, 28, 30 and 40 are anticipated"), appellants first argue that JP 10-014844 does not teach the claimed apparatus including a device "for generating a gas having an oxidizing effect that is employed in a wash program" since, it is alleged, JP 10-014844 discloses using gases in a sterilization process similar to the art discussed in the present specification (see the Appeal Brief, paragraph bridging pages 5 and 6). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Appellants next argue that JP 10-014844 does not teach the claimed apparatus including a device "for generating a gas having an oxidizing effect that is employed in a wash program" since, it is alleged, JP 10-014844 discloses its structure using ozone only for a disinfection mode where ozone gas and water are brought into contact with each other in a gas-liquid mixing part and scattered in a chamber through ozone atomizer nozzles (see the Appeal Brief, paragraph bridging pages 6 and 7). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

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patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Appellants' next argument is not entirely clear. Appellants apparently argue that JP 10-014844 teaches away from the claimed apparatus since, it is alleged, "it relates to a dishwasher focused on providing lower cost and shorter wash times (see the Appeal Brief, paragraph bridging pages 6 and 7)." Presumably, appellants are extolling the virtues (i.e. lower cost and shorter wash times) of their claimed apparatus. If this is the case, the position of the Examiner is that the perceived benefits of the claimed apparatus are not germane to the issues of rejection. Moreover, arguments of counsel cannot take the place of factually supported objective evidence. MPEP 2145.

If, on the other hand, appellants are referring to JP 10-014844 as the apparatus which provides lower cost and shorter wash times, then appellants' point is not clear. If appellants mean to put forth that that JP 10-014844 is nonanalogous art, then the Examiner takes the position that it has been held that a prior art reference must either be in the field of appellants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellants were concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, JP 10-014844 teaches the structure of a dishwasher, which is in appellants' field of endeavor. At any rate, JP 10-014844 does not teach away from the claimed apparatus since JP 10-014844 does not teach that the claimed apparatus is bad.

Appellants next argue that JP 10-014844 does not teach or suggest applying the gas with a mist since, it is alleged, JP 10-014844 discloses using a mist during a sterilization program (see the Appeal Brief, page 7, first full paragraph). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Appellants next argue that JP 10-014844 does not teach or suggest that the washing container is operable to receive ozone-enriched mist during a wash program since, it is alleged, JP 10-014844 discloses using ozone during a sterilization program (see the Appeal Brief, page 7, second full paragraph). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding the second ground of rejection (see the Appeal Brief at page 5, paragraph beginning "(b) Whether claims 21-23, 25, 28 and 30 are unpatentable"), appellants first argue that US 5,172,572 to Ono is non-analogous art since, it is alleged, Ono is not relevant to the problem solved by the present invention (see the Appeal

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Brief, paragraph bridging pages 7 and 8). The Examiner maintains the position that it has been held that a prior art reference must either be in the field of appellants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellants were concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Ono teaches a structure of a dishwasher, which is in the field of appellants' endeavor.

Appellants next argue that the applied art does not teach or suggest the claimed apparatus wherein ozone is used in a wash program since, it is alleged, JP 2003-144372 discloses using ozone during a sterilization program (see the Appeal Brief, page 8, last paragraph). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Appellants next assert that the applied art does not teach or suggest "structure for using ozone in a wash cycle" (see the Appeal Brief, page 9, first paragraph). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

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patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding the third and fourth grounds of rejection (see the Appeal Brief at page 5, paragraphs beginning "(c) Whether claims 21-24 and 28-30 are unpatentable" and "(d) Whether claim 26 is unpatentable", respectively), appellants first argue that JP 11-137882 does not teach or suggest the claimed apparatus including a washing container which is fully capable of receiving a gas having an oxidizing effect that has been added to rinsing liquid or raw water, and in fact teaches away from this feature since, it is alleged, JP 11-137882 discloses using ozone after completion of a washing program using detergent (see the Appeal Brief, page 10, first full paragraph). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Whether the apparatus of the applied art is used such that gas is used before, during or after a washing program is a proper limitation for a method claim rather than an apparatus claim. Though not germane to the issue of rejection, it is noted that JP 11-137882 does not teach away from a method step of using ozone in a wash cycle because JP 11-137882 does not teach that using ozone in a wash cycle is bad.

Appellants next repeat the assertion that the applied art does not teach or suggest "structure for using ozone in a wash cycle" (see the Appeal Brief, page 10, last paragraph). The Examiner maintains the position that the present claims are drawn to an apparatus, not a process. Thus, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Appellants next repeat the argument that the applied art teaches away from the claimed apparatus (see the Appeal Brief at page 11, second paragraph). Accordingly, the Examiner maintains the positions discussed above with respect to the teaching away argument. The issue still involves the intended use of a claimed apparatus.

Appellants' next argue that the statement that "since all the structures are found in the combined prior art, it is fully capable of performing the functions recited" amounts to improper hindsight (see the Appeal Brief at page 11, last paragraph). The position of the Examiner is that this argument is misplaced. The notion of "improper hindsight" has to do with whether or not one of ordinary skill in the art would have found it obvious to combine prior art references, but is not relevant with respect to the issue of whether or not an apparatus of the combined prior art is fully capable of being used to perform the functions recited in appellants' apparatus claims.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/E. G./

Examiner, Art Unit 1714

Conferees:

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1714

/William Krynski/

Quality Assurance Specialist, TC 1700